Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
The Development of Operational,	)	WT Docket 96-86
Technical and Spectrum Requirements	)	
for Meeting Federal, State and Local	)	
Public Safety Communications	)	
Requirements Through the Year 2010	)	

COMMENTS OF NENA

The National Emergency Number Association ("NENA") hereby responds to the Eighth Notice of Proposed Rulemaking ("Notice") in the captioned proceeding, FCC 06-34, released March 21, 2006.[1] NENA's principal interest in the Notice relates to its work over the past 3 years on NG9-1-1 requirements and design, and over the past 18 months on NENA's Next Generation Enhanced 9-1-1 ("NG E9-1-1") Partner Program, an effort whose initial findings and recommendations were released just four months ago.[2]

NENA's NG Report (at 8) likened the federal government's potential role in developing new systems of emergency communications to the building of the interstate highway system half a century ago:

> The federal government should provide detailed guidelines for state and local governments to meet when implementing IP

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[1] 71 Federal Register 17786-17790, April 7, 2006.
[2] "Next Generation 9-1-1: Responding to an Urgent Need for Change," February 2006, available at http://www.nena.org/media/files/ng_final_copy_lo-rez.pdf. ("NG Report") When we refer to NG 9-1-1 without the E for enhancement, we mean future systems generally. "NG E9-1-1" denotes NENA's program.

> emergency services networks. Funding requirements must be tied to these guidelines, which is akin to the 1950s federal government program that designed and funded the creation of a national highway program.

A part of this central direction uniquely assigned by Congress to the FCC is the allocation of radio spectrum. Fifty years ago, we began to overlay U.S. interstate highways on the grid of one-, two- and four-lane roads then existing. Today, as in this proceeding, we plan for additional broadband overlays on the current public safety map of narrowband and wideband channels.

One of the needs for a new system of emergency communications identified in the NG Report (at 4) is to tap "sources of information that are only readily available with a flexible, wide access, high bandwidth network." These applications, among many others, include full-motion video from field to headquarters; telematics automatic crash notification data sent field to hospital or between two points in an incident field; transmission of building diagrams to firefighters; digital image and other large file transfers; and monitoring of medical or environmental data from scenes of individual trauma or mass disaster.[3]

Two years ago, NENA published a Technical Information Document ("TID") on "Future 9-1-1 Models (Issue 11)" that includes a vision of requirements and capabilities for emergency calling five years out (2009).[4] The TID compares these

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[3] Exhibit A lists some of the subcommittee and working group assignments within the Non-Traditional Communications Committee sponsored by NENA. Exhibit B contains a similar status report on the work of the VOIP Packet Committee. The full range of technical committee work may be accessed at http://www.nena.org/pages/Content.asp?CID=120&CTID=16

[4] http://www.nena.org/media/files/FMSG-TIDJune2004F.pdf

features with what it calls "Master" and "Current" 9-1-1 models. The five-year model, in particular, provides details about applications dependent on broadband transmission availability.

We share this information to emphasize that the 9-1-1 system of the near and medium future is advancing well beyond 9-1-1 as we know it today. Numerous data sources will be readily available and data sharing capabilities among Public Safety Answering Points (PSAPs) and between PSAPs and other agencies and their responders in the field will be possible that do not exist today. All of this will require increased bandwidth for emergency communications and we encourage the Commission to take into consideration the requirements of a fully IP-enabled NG 9-1-1 and emergency communications system.

With regard to individual proposals for spectrum rechannelization, Motorola and Lucent have highlighted the comparisons of channel quantities and throughputs and the potential tradeoffs of regional flexibility and national uniformity. We await with interest the responses to the Notice and look forward to addressing the initial comments of other parties. We applaud the manifold contributions of our technical and operational committee members, and the efforts of APCO and all other public safety associations that continue to work diligently on public safety spectrum issues, notably the National Public Safety Telecommunications Council ("NPSTC").

Respectfully submitted,

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EXHIBIT A

Non-Traditional Communications Technical Committee

Scopes-Goals and Updated Status Reports

Subcommittee or Working Group	Scope or Goal of the Subcommittee or Working Group
Telematics/Automatic Collision Notification	**SCOPE/GOAL:** To explore the methods by which notification by a third party network, technology or system can direct a call to the appropriate Public Safety Answering Point. Specifically directed toward the Telematics Industry, the document contains submissions directly from those industry experts relating to this topic. **DIRECTION:** To be formalized into a TID. **CURRENT STATUS:** In committee **CONTACTS:** Dave Irwin is chairing the Committee. Dave can be contacted at D.Irwin@EMD.WA.GOV.

Medical Help Desk	SCOPE/GOAL: Identify the need to create connectivity between the Nurse/Medical Advisor of a medical provider and the appropriate Public Safety Answering Point. DIRECTION: Investigating the possible application of an IP based network with Health Resources and Services Administration (HRSA). CURRENT STATUS: Active CONTACTS: Tony Busam, chair Non Traditional Committee. Tony can be contacted at: tbusam@rcc.com.
Data Only Devices	SCOPE/GOAL: Identify devices having only data that could access 9-1-1 through the Public Switched Telephone Network and packet access. DIRECTION: Maintain vigilance and act as watchdog for devices having the scope and goal of this committee. CURRENT STATUS: Active with regard to continuing identification of emerging technologies. CONTACTS: Tony Busam, chair Non Traditional Committee. Appointments by technology. Tony can be contacted at: tbusam@rcc.com.

Convergence	SCOPE/GOAL: Explore and amplify opportunities for public safety to leverage cross-disciplines regarding communication based connectivity. Identify similarities of need between local, county, state, regional and national public safety based entities. DIRECTION: Recognizing the proliferation of IP based emergency communication systems determine the likelihood that cross-use of existing or emerging network topologies could be used. CURRENT STATUS: Active. Currently studying the fiscal implications of a national backbone network. Identifying funding sources and stakeholders. CONTACTS: Tony Busam, chair Non Traditional Committee. Tony can be contacted at: tbusam@rcc.com.

EXHIBIT B

Voice over IP/Packet Technical Committee

Scopes-Goals and Updated Status Reports

ommittee or WG	Scope or Goal of the Subcommittee or WG
VoIP/Packet Technical Committee (VTC)	**SCOPE/GOAL:** The Voice over IP (VoIP) and Packet technical committee's goal is to identify and solve technical issues relating to call delivery from VoIP sources and migrate existing 9-1-1 technologies into a packet environment for both voice and data. **DIRECTION:** Identified technical issues are handled via Working Groups that are formed to accomplish specific goals, which usually result in some type of official NENA documentation (Recommended Standard, TID or TRD). **CURRENT STATUS:** This activity is ongoing. See individual WG status. **CONTACTS:** Nathan Wilcox is the Chair and he can be contacted at nwilcox@microdatagis.com

ɔmmittee or WG	Scope or Goal of the Subcommittee or WG
VTC – Long Term Definition (LTD)	**SCOPE/GOAL:** The Long Term Definition working group will consider technical specifications and create the appropriate documentation for implementing Enhanced 9-1-1 in an end-to-end VoIP environment. **DIRECTION:** Will identify the initial requirements and develop standards. Subject to change!! CURRENT STATUS: Working on the following efforts: • IETF SIP emergency call efforts • Next generation PSAP requirements • Next generation network mechanisms The output from this group will be considered as i3 or NG solutions when they are deployed. **CONTACTS:** Brian Rosen (brosen@emergicom.com) is the work group leader.

ommittee or WG	Scope or Goal of the Subcommittee or WG
VTC – Migratory Definition (VMWG)	**SCOPE/GOAL:** The Migratory Definition working group will consider methods for processing 9-1-1 calls placed from within a VoIP environment without diminishing the current quality of service experienced for traditional enhanced 9-1-1 callers. And, discover methods for migrating existing Enhanced 9-1-1 technologies (at all levels of call and data delivery) into a more native VoIP environment. **DIRECTION:** Refining the standard for interim call delivery originating from a VoIP caller. CURRENT STATUS: 1. **Working on version 2 of the original standard created for delivery of IP calls (i2.5.** 2. **Identifying the various interfaces and components for delivery of 9-1-1 calls from within an IP (VoIP) environment using the agreed upon single architecture. This will include provisioning and delivery of a validated location object associated with a VoIP caller from either a stationary or nomadic perspective.** 3. **These solutions will be known as i2 (interim) when deployed.** **Estimated completion of the mist recent iteration of the i2 document is slated for fall of 2006.** **CONTACTS:** Anand Akundi (aakundi@telcordia.com) is the group's Lead.

ommittee or WG	Scope or Goal of the Subcommittee or WG
VTC – VoIP Location Working Group (VLWG)	**SCOPE/GOAL:** Three specific tasks: • Devise / recommend a method for providing civil location for residential VoIP customers • Develop a list of data requirements (based on wireline/wireless and adapted for VoIP) • Specify interface (XML schema) for non-call setup associated location updates DIRECTION: Task 1 - Several WG members are currently evaluating the wireline and wireless data element requirements as to their purpose/use by PSAPs, with the expectation that this will assist in determining the best mechanisms for supporting similar/equivalent functionality in VoIP signaling. Final output for this task will probably be a TID to supplement NENA 02-010 and 02-011. Task 2 - Working to identify specific goals and outcomes for the VLWG to complement the work of the VMWG. Output for this task will be either a TID, or input to the VMWG and LTD work efforts. Task 3 - Commencement of this task is somewhat dependent on the architectures that are selected for the I2 and I3 phases of VoIP implementation. We will assist in identifying the relevant data exchange interfaces. Output for this task will probably include a TID, or input to the VMWG TID and LTD work efforts, as well as some XML schemas. CURRENT STATUS: **Bi-weekly conference calls.** **CONTACTS:** Nadine Abbott (nabbott@telcordia.com) is the group's lead.

ɔmmittee or WG	Scope or Goal of the Subcommittee or WG
VTC – VoIP Characteristics	**SCOPE/GOAL:** Procure, create and publish a VoIP primer document to be used by individuals not familiar with this technology. **DIRECTION:** Continuing work will focus on "current" VoIP technologies and describing those in the VoIP TID as needed. CURRENT STATUS: **Completed TID.** **CONTACTS:** Mike Aprile (maprile@redskytech.com) is the group's Lead.
VTC – Standards Development Organization	**SCOPE/GOAL:** Create documentation that defines the current work within the Standards Development Organizations on technical issues relating to 9-1-1 call delivery from a VoIP environment and all other issues impacting both technologies combined. **DIRECTION:** Conitnuing work will focus on any significant changes within the SD Organizations governing or commenting on VoIP/9-1-1 related issues. CURRENT STATUS: **Completed TID. Updates will be provided annually (most recently updated 2/06).** **CONTACTS:** Marc Linsner (mlinsner@cisco.com) is the group's lead.

ɔmmittee or WG	Scope or Goal of the Subcommittee or WG
VTC – Enhanced 9-1-1 Requirements	**SCOPE/GOAL:** Create documentation and associated information for defining all elements that make-up an Enhanced 9-1-1 system. This will include all levels of technologies currently deployed. **DIRECTION:** Future refinements on the document will be considered if significant changes supporting current 9-1-1 call delivery occur to warrant them. CURRENT STATUS: **Document is completed.** **CONTACTS:** Terry Reese (treese@telcordia.com) is the group's lead.